



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,784	06/05/2006	Masahiro Kozakai	500615.20294	5496
26418 7590 07/25/2008 REED SMITH, LLP ATTN: PATENT RECORDS DEPARTMENT 599 LEXINGTON AVENUE, 29TH FLOOR NEW YORK, NY 10022-7650				
EXAMINER				
SMITH, LINDA B				
ART UNIT		PAPER NUMBER		
2862				
MAIL DATE		DELIVERY MODE		
07/25/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/581,784

Applicant(s)

KOZAKAI ET AL.

Examiner

LINDA B. SMITH

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 4 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 6/5/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-4 are presented for examination.

Drawings

2. The drawings are objected to because Fig. 6 needs to be more clearly labeled.. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
- a. Paragraph 0035, line 6 discloses the lens barrel holder as “9a”, the lens barrel holder everywhere else in the specification is labeled “10a”.
- Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

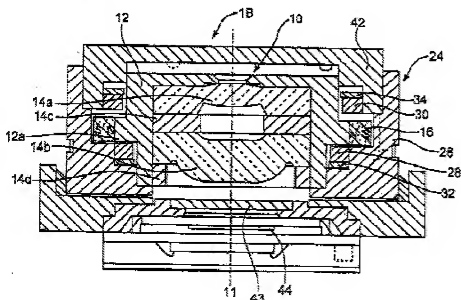
5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Tsuruta et al. (US PG. Pub. No. 2004/0207745 A1 and hereinafter Tsuruta)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

6. As to claim 1, Tsuruta discloses lens drive device comprising: a movable lens body (10) provided with a lens(14) (**abstract**), a drive means (16) for moving the movable lens body in an optical axis direction of the lens (0021, 0049, and 0066), and a fixing body (24) which movably supports the movable lens body in the optical axis direction (0051 and 0066), wherein the movable lens body is comprised of a lens-barrel provided with a lens and a lens-barrel holder which movably supports the lens-barrel in the optical axis direction (0021, 0048, and Fig. 3 or Fig. 1), the lens-barrel holder comprises a first magnetic means (16) as the drive means (0071 and Fig. 3), the fixing body (24) comprises a second magnetic means (32 & 34) as the drive means and a regulating part (36 more clearly labeled in Fig. 8) which regulates a moving range in the optical axis direction of the lens-barrel holder (0057, lines 9-15, 0059 and 0061), and the movable lens body is moved by a magnetic attractive force or a magnetic repulsive force between the first magnetic means and the second magnetic means (0057 and 0075).

Patent Application Publication Oct. 21, 2004 Sheet 2 of 9 US 2004/0207745 A1

Fig. 3



Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuruta in view of Akimoto et al. (JP 2002-374436 A and hereinafter Akimoto).

Although the teachings of Tsuruta shows substantial features of the claimed invention (discussed paragraph above), it fails to teach:

the lens drive device, wherein the lens-barrel holder is formed in a cylindrical shape and a female screw part is formed on its inner periphery, and a male screw part is formed on an outer periphery of the lens-barrel and the male screw part is threadedly engaged with the female screw

part, and the lens-barrel is moved in the optical axis direction by relatively turning the lens-barrel holder with respect to the lens-barrel.

Akimoto discloses a camera for portable equipment having:

the lens drive device, wherein the lens-barrel holder is formed in a cylindrical shape and a female screw part is formed on its inner periphery (**0012**), and a male screw part is formed on an outer periphery of the lens-barrel and the male screw part is threadedly engaged with the female screw part (**0013**), and the lens-barrel is moved in the optical axis direction by relatively turning the lens-barrel holder with respect to the lens-barrel (**0013**).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the lens drive device of Tsuruta with a male and female screw parts as taught by Akimoto in order to provide a means to connect the lens-barrel holder and lens barrel and to adjust the distance between the lens and the image sensor in a focusing adjustment (**0013**).

Allowable Subject Matter

10. Claims 3 and 4 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest in combination as claimed a manufacturing method for manufacturing the lens drive device which moves one half of the case body and the other half case body such that a spacer is sandwiched between and then removed. When the spacer is removed the gap between the regulating part and the lens-barrel holder is set.

Prior Art Made of Record

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- b. Nakano (US Patent No. 6,603,612 B2) discloses using a spacer layer between two lens barrels which remains as part of the structure.
- c. Bogdan et al. (US PG. Pub. No. 2007/0031137 A1) discloses a spacer element interposed between the housing and lens unit.
- d. Lee et al. (US Patent No. 7,095,572 B2) discloses a lens holder apparatus of camera lens module.
- e. Tsai et al. (US PG. Pub. No. 2005/0018068 A1) discloses digital camera assembly with spacer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINDA B. SMITH whose telephone number is (571)270-3827. The examiner can normally be reached on Monday through Friday 7:30AM-5:00PM EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on (571) 272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Linda B Smith/
Examiner, Art Unit 2862

/Patrick J Assouad/

Supervisory Patent Examiner, Art Unit 2862